

4. (6 points) Find the *exact* equation of the linear approximation to the curve $f(x) = 10e^{0.4x}$ having slope equal to 2.

5. (10 points) Find the *exact* coordinates of the point (x, y) where the tangent line to the graph of

$$y^3 - xy = -6$$

is vertical. You should start by differentiating the equation above implicitly with respect to x . Show step-by-step work.